SANYO

VCC-6975P Colour PAL

Digital

1/3" Colour CCD High-resolution Camera

- Built in DSP (digital signal processing) circuit
- Intelligent digital motion detector
- x32 Electronic sensitivity (minimum illumination of 0.05 Lux)
- x8 Digital zoom with digital pan and tilt
- 480 TV lines of horizontal resolution
- SSP compatible
- Dual power operation, 24 V AC / 12 V DC

CE ISO 9001 DNV Accredited by the RvA ISO 9001 REGISTERED FIRM DNA Certification B. V., THE NETHERLANDS

Horizontal 480 TV Lines

SF-1407MV

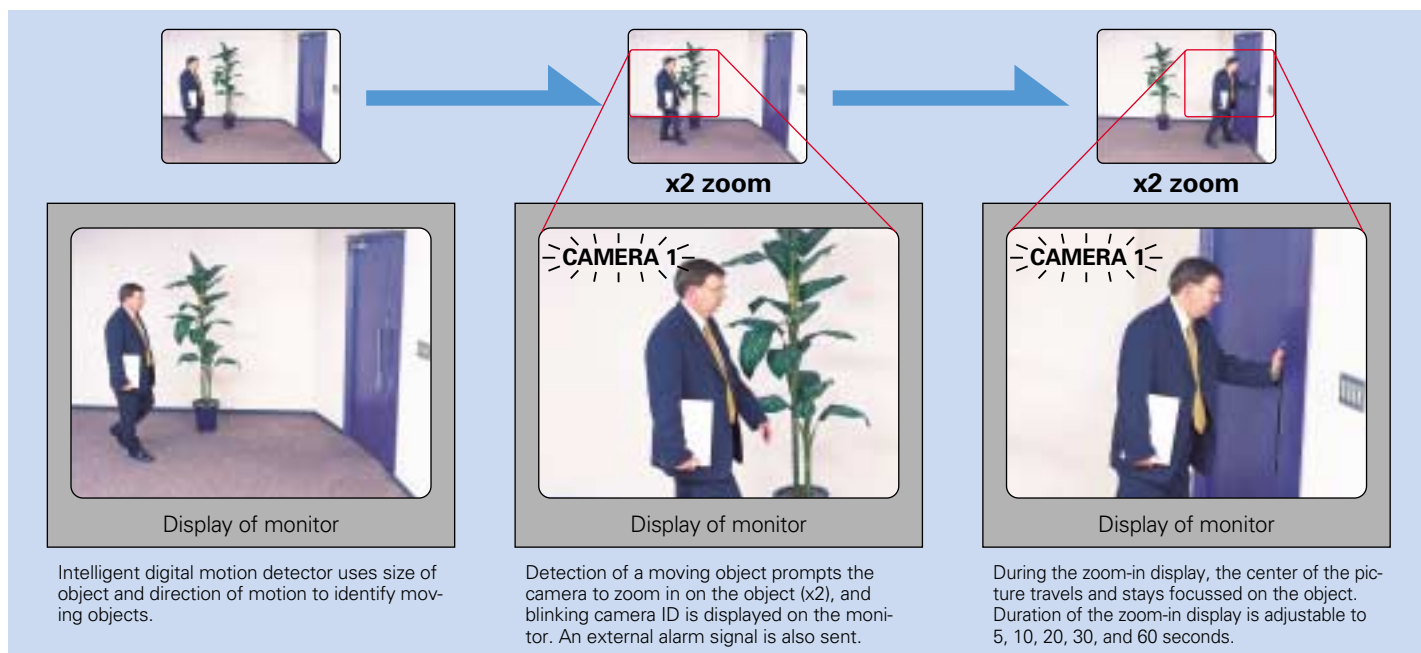## 1/3" Colour CCD
High-resolution Camera
VCC-6975P

Shown with optional lens

Intelligent Digital Motion Detector

An all-new Intelligent Digital Motion Detector is built-in to detect moving objects in the picture and send an alarm
The intelligent Digital Motion Detector analyzes changes in picture brightness on the screen and uses the direction of motion and size of the object to identify moving objects. The system can be set to produce an external alarm signal and/or switch to a x2 digital zoom-in display. Furthermore, the center of the zoom-in picture stays focussed on the moving object.

x2 zoom

x2 zoom

CAMERA 1

CAMERA 1

Display of monitor

Display of monitor

Display of monitor

Intelligent digital motion detector uses size of object and direction of motion to identify moving objects.

Detection of a moving object prompts the camera to zoom in on the object (x2), and blinking camera ID is displayed on the monitor. An external alarm signal is also sent.

During the zoom-in display, the center of the picture travels and stays focussed on the object. Duration of the zoom-in display is adjustable to 5, 10, 20, 30, and 60 seconds.

Reliable detection of moving objects
The intelligent Digital Motion Detector uses seven factors in analyzing changes in picture brightness to enable reliable motion detection and reduce false alarms.

1 Direction
It is possible to narrow the target to objects moving in certain directions only. This feature enables the system to detect people coming into a room while disregarding people going out. It is also possible to detect all moving objects without setting the direction.
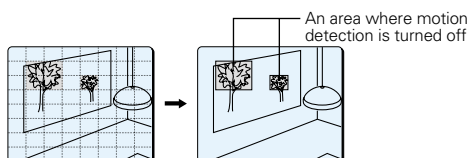
DIRECTION →→

CAMERA 1

Set the direction to "right"
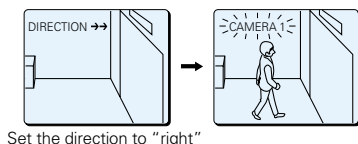
2 Size
Freely set the size of target objects.

3 Masking
Freely establish the area where motion detection is turned off.

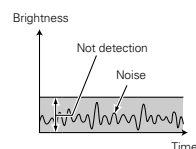An area where motion detection is turned off

4 Magnitude of movement
Set the magnitude of movement to be detected.

5 Brightness
Set the lowest level of brightness to be analyzed. Use this feature to avoid influences of electric noises on the darker area of the screen.

Brightness

Not detection

Noise

Time

6 Magnitude of brightness shift
Set the magnitude of changes in brightness. This feature is used to disregard a sudden and huge change in brightness such as one caused by turning on/off the lights.

7 Duration
Set the time the system should continue monitoring before identifying a moving object. This feature enables the system to neglect high speed objects such as automobiles.

*The intelligent Digital Motion Detector function is not available when the electronic sensitivity is set to ON or when the electronic shutter is set to "long mode".

Features

x32 electronic sensitivity

When the illuminance of the monitoring point drops down, electronic sensitivity can be automatically increased to x32 (max.) to brighten up the image. The minimum illuminance on the object is 0.05 Lux (using F1.2 lens) which makes it possible to obtain a clear picture with almost no light at all.
The automatic increase in gain can be set to x2, x4, x8, x16, or x32.
The camera can even cope with a gradual and continuous change in illuminance from day to night and maintains a crisp picture by successive adjustments of the auto iris, auto gain control, and electronic shutter.

When the electronic sensitivity is set to ON

High quality image with DSP

The adoption of a new DSP (Digital Signal Processor) has brought up the quality standard of the monitored image for reliable surveillance.
1) By digitizing the Colour processing, Colour reproduction has been largely enhanced.
2) DSP maintains crisp borders and also restricts smear and smudges of Colour. It further enables a wide choice of settings to control the degree of edge compensation.

On-screen settings

Camera settings can be easily controlled through on-screen menus. A new setting will be reflected on the monitor to make optimum settings easy.
Menu languages built in: English / French / Germany

x8 digital zoom with digital pan and tilt

Digital zoom of x2, x4, and x8, or continuous zooming up to x8 is available. The center of zooming can also be moved around in all directions. Zooming can be controlled via SSP or by means of a remote control circuit.

Two types of backlight compensation with fine tuning

1) Multi-spot photometry mode setting
This mode enables the user to specify screen areas, among 32 blocks, in which illuminance measurements will not take place. The picture display will be kept to optimum brightness according to the illuminance measurements obtained in other areas.
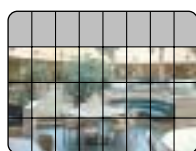
Areas in which illuminance will not be measured

2) 5-section photometry mode setting
The screen will be divided into 5 sections to which the user will assign 15-scale weights.
The brightness of the picture will be kept at optimum by giving priority to the area with the higher weight. (A DC type auto-iris lens is required to enable this mode.)
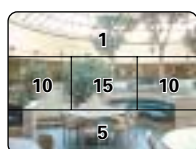
An example of weight setting: Top = 1, Bottom = 5, Left = 10, Right = 10, Center (fixed) = 15. The size and position of the center area is adjustable.

Three types of white-balance adjustment

1) Automatic tracking mode to adjust white-balance as the light (Colour temperature) at the monitoring point changes.
2) Push-and-lock mode to adjust white-balance when the set button is pushed.
3) Manual white-balance by adjusting R and B volume.

Camera ID display

An 8-character (max.) camera ID can be super-imposed on the monitor. The user can change the display to any position on the screen.

Three types of synchronization

Internal, line lock, or external sync. can be selected. Selection = between internal and line lock sync. mode is done on-screen. The camera automatically switches to external sync. mode by receiving a VBS. (Line lock sync. mode is available only with 24V AC power supply.)

Dual power operation

24V AC or 12V DC applicable.

13 mode electronic shutter

Short mode: 1/50, 1/120, 1/250, 1/500, 1/1000, 1/2000, 1/4000, and 1/10000 sec.
Long mode: 2/50, 4/50, 8/50, 16/50, and 32/50 sec.

1/3" CCD image sensor with approx. 470,000 picture elements

480 TV lines of horizontal resolution

Electronic iris (indoor use)
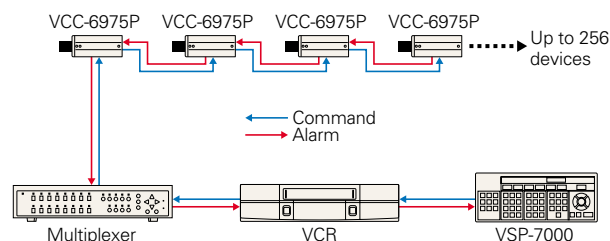

S S P
Security Serial Protocol

SSP (RS-485) compatibility

The whole security system, including the VCC-6975P, may be controlled by a VSP-7000 system controller using a new communication protocol SSP (Security Serial Protocol).
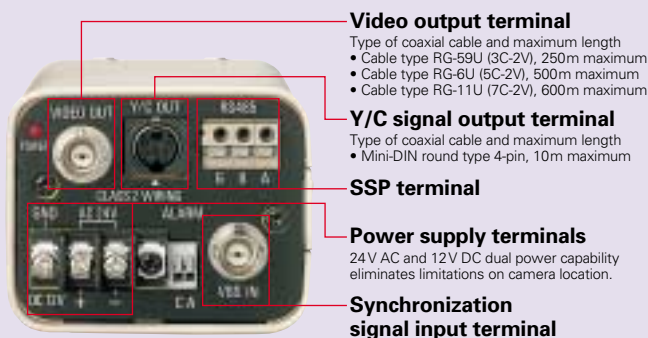Remote control functionality on VSP-7000 includes all on-screen menu items of the VCC-6975P.

SSP: Bi-directional communications (half duplex)
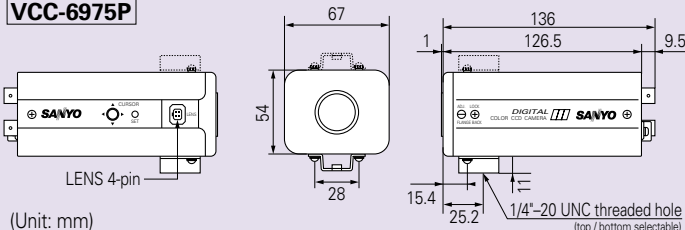Maximum cable length for communication up to 1200 m (4000 feet)

VCC-6975P   VCC-6975P   VCC-6975P   VCC-6975P   Up to 256 devices

← Command
→ Alarm

Multiplexer   VCR   VSP-7000

System Controller VSP-7000 (sold separately)

VCC-6975P rear panel

Video output terminal
Type of coaxial cable and maximum length
- Cable type RG-59U (3C-2V), 250m maximum
- Cable type RG-6U (5C-2V), 500m maximum
- Cable type RG-11U (7C-2V), 600m maximum

Y/C signal output terminal
Type of coaxial cable and maximum length
- Mini-DIN round type 4-pin, 10m maximum

SSP terminal

Power supply terminals
24V AC and 12V DC dual power capability eliminates limitations on camera location.

Synchronization signal input terminal

VCC-6975P

LENS 4-pin

(Unit: mm)

1/4"–20 UNC threaded hole (top / bottom selectable)

| MODEL	VCC-6975P
Scanning system	PAL standard 625 lines, 25 frames/sec.
Image sensor	1/3" (approx. 4.8 mm x 3.6 mm) interline transfer method CCD
Picture elements	Total: 795(H) x 596(V), Effective: 752(H) x 582(V)
Horizontal resolution	480 TV lines
Minimum illumination	Approx. 0.05 Lux (F1.2, x32 electronic sensitivity) / Approx. 1.4 Lux (F1.2, normal mode)
Electronic sensitivity	ON / OFF —— (on screen) / ON = x2 / x4 / x8 / x16 / x32 —— (on screen)
Video output level	1.0 V (p-p) (75 ohms, composite)
Video S/N ratio	More than 48 dB
Backlight compensation	Multi-zone light measuring system / ON / OFF —— (on screen) / ON = Multi-spot photometry / 5-section photometry —— (on screen)
White balance	(TTL) ATW / AWC / Manual —— (on screen)
Gain control	ON (Automatic) / OFF —— (on screen)
Gamma	ON (γ = 0.45) / OFF —— (on screen)
Electronic shutter	Short mode: 1/50, 1/120, 1/250, 1/500, 1/1000, 1/2000, 1/4000, 1/10000 sec. —— (on screen) / Long mode: 2/50, 4/50, 8/50, 16/50, 32/50 sec. —— (on screen)
Light control	Optical auto iris lens / Electronic iris (indoor use)
Lens mount	CS / C mount (C mount: using C-mount adaptor supplied)
Flange back	12.5 mm ±0.5 mm adjustment
Auto iris lens	DC / VIDEO —— Slide SW (side)
Auto iris output	DC: Drive coil (+, -), Brake (Damp) coil (+, -) / VIDEO: +12 V DC (Max. 50 mA), Video output (high-impedance)
Lens iris level	LEVEL: L~H —— (on screen)
Electronic iris	ON / OFF —— (on screen)
Electronic iris range	1.4 Lux to 70,000 Lux (F1.2), 2.0 Lux to 100,000 Lux (F1.4)
Synchronizing system	Internal sync. / Line lock —— (on screen) / External sync. —— [automatic switching]
V phase adjustment	LINE PHASE —— (on screen)
Motion detector	ON / OFF —— (on screen) / Alarm out: RS485 (G, B, A) and ALARM (C, A)
Electronic zoom	ON / OFF —— (on screen) / ON = Continuance (up to x8), Fix (x2 / x4 / x8), Pan / tilt operation
Mirror image effect	H, V, H/V, 3 mode reverse image
Camera ID	ON (up to 8 characters) / OFF —— (on screen)
Sockets — Video signal	VIDEO OUT —— BNC (rear)
Sockets — Y/C signal out	mini-DIN 4-pin (rear)
Sockets — SSP (RS-485)	RS485 (G, B, A) —— Pushbutton terminal x 1 pair (rear)
Sockets — Alarm signal	ALARM (C, A) —— Pushbutton terminal x 1 pair (rear)
Sockets — External sync.	VBS IN —— BNC (rear)
Sockets — Auto iris lens	LENS —— 4-pin (side)
Sockets — Power supply	24V AC, GND —— 3-pin terminal (rear) 12V DC —— 2-pin terminal (rear)
Environmental conditions	Temperature: -10°C to 50°C [14°F to 122°F], Humidity: within 90% RH
Power requirement	24V AC, 50 Hz or 12V DC
Power consumption (approx.)	24V AC: 4.0 W (with auto iris lens), 12V DC: 4.1 W (with auto iris lens)
Camera mount	1/4"–20 UNC (top / bottom selectable)
Dimensions (approx.)	67(W) x 54(H) x 126.5(D) mm [2.64(W) x 2.13(H) x 4.98(D) in.] (w/o camera & lens mounts)
Weight (approx.)	470 g [16.6 oz.] (w/o lens)

*Specifications subject to change without notice

Camera Set-up Unit

VAC-60 (sold separately)

Remote set-up makes you feel you have the camera right beside your monitor. Capable of setting up VCC-6975P for all on-screen menu items (intelligent digital motion detector, backlight compensation, white-balance, etc.) For better picture quality, disconnect this unit after settings are completed.

VCC-6975P

VAC-60 rear panel

VAC-60   Monitor
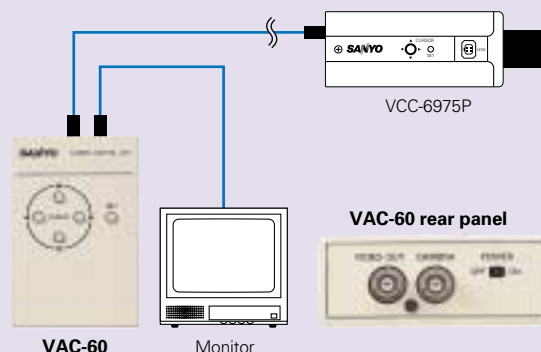
MODEL	VAC-60
Video output terminal	BNC x 1
Camera input terminal	BNC x 1
Environmental conditions	Temperature: 0°C to 40°C [32°F to 104°F], Humidity: 10 to 90%
Power requirement	3 V DC, Alkali type AAA format batteries x 2
Dimensions	90(W) x 135(H) x 36(D) mm [3.54(W) x 5.32(H) x 1.42(D) in.]
Weight (approx.)	230 g [8.1 oz.]

AC adaptor (for VCC-6975P)

VCA-35E (sold separately)

MODEL	VCA-35E
Power requirement	220 ~ 230V AC, 50 Hz
Power consumption (approx.)	17VA max.
Dimensions (approx.)	68(W) x 62(H) x 100(D) mm [2.68(W) x 2.44(H) x 3.94(D) in.]
Weight (approx.)	680 g [24 oz.]

Lenses for 1/3" CCD camera

Super Wide-angle Lens	VCL-CS2LYA	x 6 Motorized Zoom Lens	VA-TS6ZME-LY
Wide-angle Lens	VCL-CS4LY	x 10 Motorized Zoom Lens	VA-TS10ZME-LY
Standard Lens	VCL-CS8LY	Pinhole Lens	VA-TS420PE-LY
x 6 Manual Zoom Lens	VA-TS6ZE-LY	Vari-focal Lens	VA-TS2VE-LY

SSP corresponding devices   As of March 2000

System Controller
SSP System Controller   VSP-7000

Multiplexer
16-channel Duplex Multiplexer (Colour)   MPX-CD162P
16-channel Duplex Multiplexer (B/W)   MPX-MD162P
9-channel Duplex Multiplexer (Colour)   MPX-CD92P
9-channel Simplex Multiplexer (B/W)   MPX-MS92P

Realtime VCR
168-hour Recording + Realtime VCR   SRT-7168P
40-hour Recording + Realtime VCR   SRT-6000P

Time Lapse VCR
960-hour Recording Time Lapse VCR   TLS-9960P
168-hour Recording Time Lapse VCR   TLS-9168P
24-hour Recording Time Lapse VCR   TLS-9024P

*More models will be introduced soon.

*Caution: please consult the instruction manual to ensure safe and proper operation of the product.

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